

ABSTRACT OF THE DISCLOSURE

The invention relates to methods for easily separating single stranded nucleic acid material from double stranded nucleic acid material in a sample containing both. By the right choice of at least one chaotropic agent, preferably a guanidine salt, at a selected concentration and other suitable conditions such as chelating agents, pH and the like, it is possible to bind double stranded material to a solid phase such as silica particles, whereas single stranded material will not bind under those circumstances. By separating the silica particles from the sample the double stranded nucleic acid material is removed. It can easily be eluted from the silica particles. In a second step the single stranded material may be bound to a solid phase by selecting a different set of conditions. The particles can again be separated from the sample and the single stranded material may now be eluted. For very efficient separations, the process may be repeated. Following the separation of the two kinds of nucleic acid, either kind may be amplified. Methods of amplification are provided which do not need sequence data of the material to be amplified. In these methods a primer will be provided with an amplification motif and a random hybridization motif.